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Notice of Allowability

Application No.

10/783,059

Examiner

Zeev Kitov

Applicant(s)

LAI, HAN-CHUNG

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/17/07.
2. ☒ The allowed claim(s) is/are 1 - 13.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL:

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Examiner acknowledges a submission of the amendment and arguments filed on July 7, 2007. Amendments to Specification and Arguments have overcome rejections under 112, 2nd paragraph and 103(a).

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

An amended independent Claim 1 discloses a mechanism for preventing ESD damage to an electronic device having a plurality of pads and plurality of fan-out signal lines extending from pads and plurality of ESD protection devices configured corresponding to the fan-out signal lines, wherein inter alia, impedances of the ESD protection devices disposed on outermost sides of the connection area having smaller impedance than the other ESD protection devices.

The closest references for the claim are Applicant Admitted Prior Art (AAPA) together with Saito et al. (US 2004/0026741). Regarding Claims 1, AAPA discloses a mechanism for preventing ESD damage to an electronic device having a plurality of pads (P1 to P n in Fig. 1) and plurality of fan-out signal lines (F1 to Fn in Fig. 1) extending from pads and plurality of ESD protection devices (ES1 to ES n in Fig. 1 and 2) configured corresponding to the fan-out signal lines. However, it does not disclose the ESD devices disposed on outermost sides of the connection area having smaller impedance than the other ESD protection devices.

Saito discloses a compensation of uneven resistances connected to the same pad. According to Fig. 8 and paragraph [0037], for one pad 1, the resistances R_a of resistors 46a in the area A is higher than the resistance R_b of resistors 46b in the area B by a resistance r_{AB} of the parasitic resistance of the signal line 3 from the point A to the point B. Thus Saito discloses resistances of resistors in a plurality of areas for one pad, not for a plurality of pads as claimed. Propagation of the ESD in a group of parallel-connected devices is quite different from propagation of the ESD between different pads of the LCD panel. Saito reference does not disclose and does not suggest that ESD protection devices connected to the outermost pads of the line of plurality of pads having smaller impedance than the ESD protection devices of other pads.

Other independent Claims 3, 5, 7, and 10 essentially rephrase the Claim 1 limitations.

Allowability resides, at least in part, in the above-described limitations, which has not been disclosed in the Prior Art in a search.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zeev Kitov whose telephone number is (571) 272-2052. The examiner can normally be reached on 8:30 – 5:00. If attempts to reach examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached

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on (571) 272 – 2800, Ext. 36. The fax phone number for organization where this application or proceedings is assigned is (571) 273-8300 for all communications.

Z.K.

7/20/2007

A handwritten signature in black ink, appearing to read 'M. Sherry', followed by the date '7/20/07' written vertically.

MICHAEL SHERRY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800